What is claimed:

1 1. A method for use in communications, the method comprising the steps of:
2 receiving an incoming call, the incoming call representing one of a plurality of call
3 types comprising voice calls, and non-voice calls that can use a facility; and
4 admitting the incoming call for using the facility as a function of the call type of the
5 incoming call.

1 2. The method of claim 1 wherein the admitting step includes the steps of:
2 (a) associating with each call type a call bandwidth; and
3 (b) admitting the incoming call if the call bandwidth of the incoming call is not
4 greater than a spare bandwidth that is associated with the facility for use by the incoming
5 call.

1 3. The method of claim 2 further comprising the step of identifying the call type of
2 the incoming call prior to performing step (b).

1 4. The method of claim 2 further comprising the step of blocking the incoming call
2 if the incoming call is not admitted.

1 5. The method of claim 2 wherein step (b) further includes the step of reducing
2 the spare bandwidth by an amount equal to the call bandwidth of the admitted incoming
3 call.

1 6. The method of claim 2 further comprising the step of increasing the spare
2 bandwidth by an amount equal to the call bandwidth of the admitted incoming call when
3 the admitted incoming call departs.

1 7. The method of claim 1 further comprising the step of updating a count of a
2 number of voice calls currently admitted, when the admitted incoming call is a voice call.

1 8. The method of claim 1 further comprising the step of:
2 determining an amount of bandwidth available for voice as a function of a number
3 of non-voice admitted calls;
4 setting a value of at-least-one parameter as a function of the determined amount of
5 bandwidth, wherein the at-least-one parameter is associated with a buffer for holding voice
6 call traffic; and
7 performing block dropping on the held voice call traffic as a function of the set
8 value of the at-least-one parameter value.

1 9. A method for use in a packet communications system, which provides access to
2 at least one virtual circuit, the method comprising the steps of:

16

3   determining a call type of an incoming call; each call type having an associated

4   bandwidth;

5   admitting the incoming call to use the virtual circuit if the associated bandwidth of

6   the incoming call is not greater than a spare bandwidth that is associated with the virtual

7   circuit.

1   10. The method of claim 9 further comprising the step of blocking the incoming

2   call if the incoming call is not admitted.

1   11. The method of claim 9 wherein step of admitting the call further includes the

2   step of reducing the spare bandwidth by an amount equal to the call bandwidth of the

3   admitted incoming call.

1   12. The method of claim 9 further comprising the step of increasing the spare

2   bandwidth by an amount equal to the call bandwidth of the admitted incoming call when

3   the admitted incoming call departs.

1   13. The method of claim 9 further comprising the step of updating a count of a

2   number of voice calls currently admitted, when the admitted incoming call is a voice call.

1   14. The method of claim 9 further comprising the step of:

2   determining an amount of bandwidth available for voice as a function of a number

3   of non-voice admitted calls on the virtual circuit;

4   setting a value of at-least-one parameter as a function of the determined amount of

5   bandwidth, wherein the at-least-one parameter is associated with a buffer for holding voice

6   call traffic for transmission over the virtual circuit; and

7   performing block dropping on the held voice call traffic as a function of the set

8   value of the at-least-one parameter value.

1   15. A method for use in a packet communications system, which provides access

2   to at least one virtual circuit, the method comprising the steps of:

3   determining a call type of an incoming call; each call type having an associated

4   bandwidth;

5   admitting the incoming call to use the virtual circuit if the associated bandwidth of

6   the incoming call is not greater than a spare bandwidth that is associated with the virtual

7   circuit;

8   responsive to the admitted call, providing a stream of ATM Adaptation Layer 2

9   (AAL2) packets for conveying information associated with the admitted call; and

10   responsive to the stream of AAL2 packets, providing a respective stream of ATM

11   cells for transmission over the virtual circuit.

1   16. The method of claim 15 further comprising the step of blocking the incoming
2   call if the incoming call is not admitted.

1   17. The method of claim 15 wherein the admitting step includes the step of
2   reducing the spare bandwidth by an amount equal to the call bandwidth of the admitted
3   incoming call.

1   18. The method of claim 15 further comprising the step of increasing the spare
2   bandwidth by an amount equal to the call bandwidth of the admitted incoming call when
3   the admitted incoming call departs.

1   19. The method of claim 15 further comprising the step of updating a count of a
2   number of voice calls currently admitted, when the admitted incoming call is a voice call.

1   20. The method of claim 15, further comprising the steps of
2   determining an amount of bandwidth available for voice as a function of a number
3   of non-voice admitted calls on the virtual circuit;
4   setting a value of at-least-one parameter as a function of the determined amount of
5   bandwidth, wherein the at-least-one parameter is associated with a buffer for holding
6   AAL2 voice call traffic for transmission over the virtual circuit; and
7   performing block dropping on the held AAL2 packets as a function of the set value
8   of the at-least-one parameter value.

1   21. The method of claim 15, further comprising the steps of
2   determining an amount of bandwidth available for voice as a function of a number
3   of non-voice admitted calls on the virtual circuit;
4   setting a value of at-least-one parameter as a function of the determined amount of
5   bandwidth, wherein the at-least-one parameter is associated with a buffer for holding
6   ATM cells conveying AAL2 voice call traffic for transmission over the virtual circuit; and
7   performing block dropping on the held ATM cells as a function of the set value of
8   the at-least-one parameter value.

1   22. Apparatus for use in communications, the apparatus comprising:
2   a call processor for receiving an incoming call, the incoming call representing one
3   of a plurality of call types comprising voice calls, and non-voice calls that can use a
4   facility;
5   wherein the call processor admits the incoming call for using the facility as a
6   function of the call type of the incoming call.

23. The apparatus of claim 22 wherein the call processor (a) identifies the call type of the incoming call, (b) associates with each call type a call bandwidth; and (b) admits the incoming call if the call bandwidth of the incoming call is not greater than a spare bandwidth that is associated with the facility for use by the incoming call. .

24. The apparatus of claim 23 wherein the call processor blocks the incoming call if the incoming call is not admitted.

25. The apparatus of claim 23 wherein the call processor reduces the spare bandwidth by an amount equal to the call bandwidth of the admitted incoming call.

26. The apparatus of claim 23 wherein the call processor increases the spare bandwidth by an amount equal to the call bandwidth of the admitted incoming call when the admitted incoming call departs.

27. The apparatus of claim 22 wherein the call processor (a) determines an amount of bandwidth available for voice as a function of a number of non-voice admitted calls; (b) sets a value of at-least-one parameter as a function of the determined amount of bandwidth, wherein the at-least-one parameter is associated with a buffer for holding voice call traffic, and (c) performs block dropping on the held voice call traffic as a function of the set value of the at-least-one parameter value.

28. Apparatus for use in a packet communications system, which provides access to at least one virtual circuit, the apparatus comprising:

a call classifier for determining a call type of an incoming call; each call type having an associated bandwidth and for admitting the incoming call to use the virtual circuit if the associated bandwidth of the incoming call is not greater than a spare bandwidth that is associated with the virtual circuit;

a processor responsive to the admitted call for providing a stream of ATM Adaptation Layer 2 (AAL2) packets for conveying information associated with the admitted call; and

a processor responsive to the stream of AAL2 packets for providing a respective stream of ATM cells for transmission over the virtual circuit.

29. The apparatus of claim 28 wherein the call classifier blocks the incoming call if the incoming call is not admitted.

30. The apparatus of claim 28 wherein the call classifier reduces the spare bandwidth by an amount equal to the call bandwidth of the admitted incoming call.

19

1   31. The apparatus of claim 28 wherein the call classifier increases the spare
2   bandwidth by an amount equal to the call bandwidth of the admitted incoming call when
3   the admitted incoming call departs.

1   32. The apparatus of claim 28 wherein the call classifier updates a count of a
2   number of voice calls currently admitted, when the admitted incoming call is a voice call.

1   33. The apparatus of claim 28 wherein the call classifier further (a) determines an
2   amount of bandwidth available for voice as a function of a number of non-voice admitted
3   calls on the virtual circuit; and (b) sets a value of at-least-one parameter as a function of
4   the determined amount of bandwidth, wherein the at-least-one parameter is associated
5   with a buffer for holding voice call traffic for transmission over the virtual circuit; and
6   wherein the processor for providing the stream of AAL2 packets performs block dropping
7   on the held voice call traffic as a function of the set value of the at-least-one parameter
8   value.

1   34. The apparatus of claim 28 wherein the call classifier further (a) determines an
2   amount of bandwidth available for voice as a function of a number of non-voice admitted
3   calls on the virtual circuit; and (b) sets a value of at-least-one parameter as a function of
4   the determined amount of bandwidth, wherein the at-least-one parameter is associated
5   with a buffer for holding voice call traffic for transmission over the virtual circuit; and
6   wherein the processor for providing the stream of ATM cells performs block dropping on
7   the held voice call traffic as a function of the set value of the at-least-one parameter value.

20